National Institute of Environmental Health Sciences

Natural disasters and population mobility in Bangladesh

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Year: 2012
Journal: Proceedings of The National Academy of Sciences of The United States of America. 109 (16): 6000-6005

Abstract:

The consequences of environmental change for human migration have gained increasing attention in the context of climate change and recent large-scale natural disasters, but as yet relatively few large-scale and quantitative studies have addressed this issue. We investigate the consequences of climate-related natural disasters for long-term population mobility in rural Bangladesh, a region particularly vulnerable to environmental change, using longitudinal survey data from 1,700 households spanning a 15-y period. Multivariate event history models are used to estimate the effects of flooding and crop failures on local population mobility and long-distance migration while controlling for a large set of potential confounders at various scales. The results indicate that flooding has modest effects on mobility that are most visible at moderate intensities and for women and the poor. However, crop failures unrelated to flooding have strong effects on mobility in which households that are not directly affected but live in severely affected areas are the most likely to move. These results point toward an alternate paradigm of disaster-induced mobility that recognizes the significant barriers to migration for vulnerable households as well their substantial local adaptive capacity.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3341015

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security, Human Conflict/Displacement

Extreme Weather Event: Drought, Flooding

Food/Water Security: Agricultural Productivity

Geographic Feature:

resource focuses on specific type of geography

Rural

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: Other Asian Country

Other Asian Country: Bangladesh

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Model/Methodology: ☒

type of model used or methodology development is a focus of resource

Methodology

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified